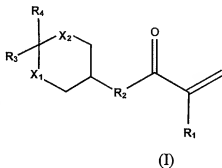


AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A monomer corresponding to a compound of formula (I):



wherein

R_1 is CH_3 or H,

R_2 is $(R_{2a})_m W_n (R_{2b})_p Y_q Z$, wherein

R_{2a} and R_{2b} are independently selected from carbonates, carbamates, ureas, dithiocarbonates, dithiocarbamates, thiocarbonates, thioureas, trithiocarbonates, and thiocarbamates,

m and p are independently selected from 0 and 1,

W is selected from CH_2 and $(CH_2)_t O$,

Y is selected from CH_2 and $(CH_2)_s O$,

t and s are integers independently selected from 0 to 50 inclusive,

n and q are integers independently selected from 0 to 50 inclusive,

Z is O or NH and is attached to the carbonyl moiety,

R_3 and R_4 are independently selected from H, a substituted or unsubstituted alkyl group, and a substituted or unsubstituted aromatic group, and

X_1 and X_2 are independently selected from O and S;

wherein

(a) if Z is $-O-$, Y is CH_2 , and q is an integer from 1 to 4 inclusive; and m , n , and p are 0, then at least one of X_1 and X_2 is S;

(b) if Z is $-O-$, W is CH_2 , and n is an integer from 1 to 4 inclusive; and m , p , and q are 0, then at least one of X_1 and X_2 is S; and

(c) if Z is O and m, n, p, and q are 0, then at least one of X₁ and X₂ is S.

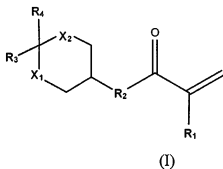
2. (Original) The monomer of claim 1, wherein the alkyl group or the aromatic group of R₃ or R₄ comprises at least one ring having 3, 4, 5, 6, 7, 8, or more members.

3. (Cancelled herein)

4-15. (Previously canceled)

16. (New) A substantially pure monomer as provided in Claim 1.

17. (New) A monomer corresponding to a compound of formula (I):



wherein

R₁ is CH₃ or H; and

R₂ comprises a carbon-containing moiety, wherein the carbon-containing moiety is not [CH₂]_n and is not [CH₂]_nO, wherein n is an integer from 1-50 inclusive; and

R₃ and R₄ are independently selected from H, a substituted or unsubstituted alkyl group, and a substituted or unsubstituted aromatic group; and

X₁ and X₂ are independently selected from O and S.

18. (New) The monomer of Claim 17, wherein the carbon-containing moiety comprises one of a carbonate group, a carbamate group, a urea group, a dithiocarbonate group, a

dithiocarbamate group, a thiocarbonate group, a thiourea group, a trithiocarbonate group, and a thiocarbamate group.

19. (New) The monomer of Claim 17, wherein the carbon-containing moiety comprises:

a first carbon-containing group; and

a second carbon-containing group connected to the first carbon-containing group;

wherein the first carbon-containing group is selected from the group consisting of carbonates, carbamates, ureas, dithiocarbonates, dithiocarbamates, thiocarbonates, thioureas, trithiocarbonates, and thiocarbamates

20. (New) The monomer of Claim 19, wherein the second carbon-containing group is selected from the group consisting of carbonates, carbamates, ureas, dithiocarbonates, dithiocarbamates, thiocarbonates, thioureas, trithiocarbonates, and thiocarbamates.

21. (New) The monomer of Claim 20, wherein the first carbon-containing group is connected to the second carbon-containing group by CH_2 .

22. (New) The monomer of Claim 20, wherein the first carbon-containing group is connected to the second carbon-containing group by an oxygen atom.

23. (New) The monomer of Claim 20, wherein the first carbon-containing group is connected to the second carbon-containing group by a $(\text{CH}_2)_m\text{O}$ group, wherein m is an integer independently selected from 1 to 50 inclusive.

24. (New) The monomer of Claim 20, wherein the second carbon-containing group of the carbon-containing moiety is further connected to a selected one of a CH_2 group, an oxygen atom, and a $(\text{CH}_2)_s\text{O}$ group, wherein s is an integer independently selected from 1 to 50 inclusive.

25. (New) The monomer of Claim 20, wherein the second carbon-containing group of the carbon-containing moiety is further connected to a selected one of a NH group and a $(\text{CH}_2)_t\text{NH}$ group, wherein t is an integer independently selected from 1 to 50 inclusive.

26. (New) The monomer of Claim 17, wherein the carbon-containing moiety comprises:

a carbon-containing group connected to a connecting group;

wherein the carbon-containing group is selected from the group consisting of carbonates, carbamates, ureas, dithiocarbonates, dithiocarbamates, thiocarbonates, thioureas, trithiocarbonates, and thiocarbamates; and

wherein the connecting group is a selected one of an oxygen atom, a NH group, a CH_2 group, and a $(\text{CH}_2)_v\text{O}$ group, wherein v is an integer independently selected from 1-50 inclusive.

27. (New) The monomer of Claim 26, wherein the carbon-containing group is further connected to the cyclical group of the monomer (I) and wherein the connecting group is further connected to the carbonyl group of monomer (I).

28. (New) A substantially pure monomer as provided in Claim 17.

29. (New) A polymer made from the monomer of Claim 28.

30. (New) A polymer made from the monomer of Claim 16.